

Appendix Q

Modified Project Parking Analysis





MEMORANDUM

Date: August 17, 2015

To: Heidi Mekkelson, Eyestone Environmental

From: Tom Gaul and Spencer Reed, Fehr & Peers

Subject: *Parking Analysis for the Los Angeles Football Club Stadium Project*

Ref: LA15-2734

This memorandum documents the assumptions, methodologies, and findings of an analysis conducted by Fehr & Peers to evaluate the potential parking requirements and impacts of the proposed Los Angeles Football Club (LAFC) Stadium (Project). The Project site is located at 3939 Figueroa Street within Exposition Park in Los Angeles, California, and is bounded by Figueroa Street to the east, Exposition Park Drive (Christmas Tree Lane) to the north, South Coliseum Drive (Hoover Street) to the west, and Exposition Park parking lot 6 to the south. The Project site encompasses approximately 15 acres and is currently occupied by the Los Angeles Sports Arena, surface parking, and a lawn area. The Project will consist of a professional soccer stadium, a VIP surface parking lot, and associated ancillary uses including a conference facility, museum, team store, retail, restaurants, and office space.

Draft and final environmental impact reports (EIRs) were prepared for the Los Angeles Memorial Sports Arena Redevelopment Project, which included replacement of the Sports Arena with a new, approximately 22,000-seat soccer stadium, in November 2010 and January 2011, respectively (Original Stadium Project)^{1,2}. The Final EIR for the Los Angeles Memorial Sports Arena Development Project was certified by the Los Angeles Memorial Coliseum Commission in February 2011. This parking analysis was conducted as part of the environmental review of the modifications to the Original Stadium Project that are proposed under the proposed Project.

PROJECT DESCRIPTION

The Project would include the demolition of the existing Sports Arena building on the Project site and the construction of an approximately 22,000-seat stadium and approximately 119,000 gross square feet (gsf)/105,900 square feet (sf) of floor area containing the proposed associated ancillary uses. The stadium would be used for Major League Soccer (MLS) games, as well as other events such as concerts and community events. The ancillary uses would include:

- Up to approximately 35,000 gsf (30,250 sf) of conference facility and office space including no more than 25,000 gsf (21,250 sf) of office (with conference facility functions generating trips

¹ Los Angeles Memorial Coliseum Commission, *Los Angeles Memorial Sports Arena Redevelopment Project, Draft Environmental Impact Report*, November 2010.

² Los Angeles Memorial Coliseum Commission, *Los Angeles Memorial Sports Arena Redevelopment Project, Final Environmental Impact Report*, January 2011.



during the weekday AM peak hour limited to 261 attendees and conference facility functions generating trips during the weekday PM peak hour limited to 430 attendees),

- An approximately 40,000 gsf (36,000 sf) museum,
- Up to approximately 30,000 gsf (27,750 sf) of team store or other retail space (of which no more than 3,000 gsf could be located along the Figueroa Street frontage of the Project), and
- Up to approximately 14,000 gsf (11,900 sf) of restaurants including no more than 5,000 gsf of high-turnover sit-down restaurants and 3,000 gsf of fast food restaurants (of which no more than 1,500 gsf could be located along the Figueroa Street frontage of the Project).

The museum, team store, other retail, and restaurants will not open for business until mid- to late-morning. Additional conference facility attendees beyond the limits described above could be provided by reducing the maximum office floor area from 25,000 gsf; for every 1,000 gsf of reduction in office space, the number of persons attending functions in the conference facility could be increased by 5.6 persons for conference facility functions generating trips during the weekday AM peak hour and by 3.0 persons for conference facility functions generating trips during the weekday PM peak hour.

Vehicle access to the Project site will be provided off of Figueroa Street via Exposition Park Drive (Christmas Tree Lane) and Martin Luther King, Jr. Boulevard. Truck access to the Project loading docks will be provided from South Coliseum Drive (Hoover Street).

Parking for the Project will be provided by the parking supply available at Exposition Park. The existing Exposition Park parking supply supports the Los Angeles Memorial Coliseum, the Los Angeles Sports Arena, the California Science Center, the Los Angeles County Natural History Museum, the California African American Museum, and other park visitors. The Coliseum and the Sports Arena currently hold events with up to 93,000 persons in attendance combined, and the Los Angeles Memorial Sports Arena Redevelopment Project EIR included a mitigation measure to ensure that events in the two venues are scheduled in such a manner as to not exceed this limit³.

The Project would also include a surface parking lot with up to approximately 250 parking spaces.

PARKING SUPPLY

As shown in Table 1, Exposition Park currently provides approximately 5,961 vehicle parking spaces in multiple parking lots and on streets within Exposition Park⁴. These spaces are used by the Los Angeles Memorial Coliseum, the Los Angeles Sports Arena, the California Science Center, the Los Angeles County Natural History Museum, the California African American Museum, and other park visitors. Per the terms of the Non-Disturbance Agreement between the California Science Center and the University of Southern

³ Mitigation Measure MMJ-1 in the Los Angeles Memorial Sports Arena Redevelopment Project EIR, which will be applied to the proposed Project, provides: "Combined with the Coliseum, the campus supervised by the Coliseum Commission currently holds events ranging from 500 to 93,000 people in attendance. The Coliseum Commission shall schedule events at the two facilities in such a manner that the event attendance size at the two venues combined does not exceed 93,000 people."

⁴ Source: Office of Exposition Park Management, June 2015.



California (USC), during Special Events at the Coliseum or Sports Arena (events with a reasonably anticipated or actual attendance of 3,000 people or more), 600 parking spaces may be reserved by the California Science Center in the Science Center Structure and 375 spaces may be reserved by the Natural History Museum in Lot 3. If these reservations occur, an estimated 4,986 vehicle spaces would be available for events in the Exposition Park parking supply. The Project would not alter the Non-Disturbance Agreement between the California Science Center and USC.

In addition, there are currently approximately 48 bicycle parking spaces in various locations throughout Exposition Park⁵.

It should also be noted that the Project Site currently contains a parking lot with 238 vehicle parking spaces, which is not included in the approximately 5,961-space parking supply in Exposition Park. Under the proposed Project, this parking lot would be retained and reconfigured to provide up to approximately 250 spaces. This would increase the vehicle parking supply in Exposition Park to up to approximately 6,211 spaces (5,236 on special event days if the Science Center and Natural History Museum reservations occur).

LAMC CODE REQUIREMENTS

For the proposed Project, parking requirements were analyzed using Los Angeles Municipal Code (LAMC) Section 12.21A.4, which establishes vehicle parking space ratios based on square feet or seats, and Section 12.21A.16, which establishes requirements for bicycle parking spaces. The following ratios were used to determine the required number of vehicle and bicycle parking spaces for the Project:

- Stadium – one vehicle space per five fixed seats (while there is no LAMC bicycle space requirement that specifically applies to large professional sports stadiums, the LAMC requirement for auditoriums of one short-term bicycle space per 50 fixed seats and one long-term bicycle space per 100 fixed seats has been applied below).
- Conference Facilities – one vehicle space per 35 gsf, one short-term bicycle space per 350 gsf, and one long-term bicycle space per 700 gsf.
- Museum and Office – one vehicle space per 500 gsf, one short-term bicycle space per 10,000 gsf, and one long-term bicycle space per 5,000 gsf.
- Retail – one vehicle space per 250 gsf, one short-term bicycle space per 2,000 gsf, and one long-term bicycle space per 2,000 gsf.
- Restaurant – one vehicle space per 100 gsf, one short-term bicycle space per 2,000 gsf, and one long-term bicycle space per 2,000 gsf.

As shown in Table 2, after applying the aforementioned LAMC parking requirements, the required parking for the stadium component of the Project on event days is initially estimated at 4,400 vehicle parking spaces. Since the Project's ancillary uses would only be open to ticketed patrons of the stadium on event days, the required parking for the Project's ancillary uses on event days would be up to approximately 178

⁵ Source: Office of Exposition Park Management, July 2015.



parking spaces based on an estimate of the parking that would be needed for employees that would be working in the ancillary uses on event days (see further detailed discussion below and Table 3). The required parking for the Project's ancillary uses under the LAMC is estimated at 676 vehicle parking spaces on non-event days.

Although the LAMC does not appear to provide a bicycle parking requirement that specifically applies to large, professional sports stadium uses, the closest potentially applicable standard would be for auditorium uses, which requires one short-term bicycle space per 50 fixed seats and one long-term bicycle space per 100 fixed seats.⁶ Using this standard, the bicycle parking for the stadium would be estimated at 660 bicycle spaces (440 short-term and 220 long-term). Under applicable LAMC requirements for the Project's ancillary uses, approximately 107 bicycle spaces would be required (58 short-term and 49 long-term). The LAMC also permits reductions in the required number of vehicle spaces at a ratio of one vehicle space reduced for every four bicycle spaces provided, up to a maximum of 20% of the required vehicle spaces for non-residential uses. As shown in Table 2, with these reductions and assuming all of the bicycle parking spaces described above are provided, the net required vehicle parking is estimated at 4,235 vehicle spaces for the stadium component of the Project on event days, and 648 vehicle spaces for the Project's ancillary uses on non-event days.

On non-event days, the vehicle parking supply provided by Exposition Park (approximately 5,961 existing spaces and up to 6,211 spaces with the Project) will adequately meet the code requirement of 676 vehicle parking spaces (without reduction for bicycle credit) or 648 vehicle parking spaces (with reduction for bicycle credit) for the Project's ancillary uses.

On stadium event days, the LAMC requirement of 4,400 vehicle spaces (without reduction for bicycle credit) or 4,235 vehicle spaces (with reduction for bicycle credit) for the Project will be accommodated by the vehicle parking supply provided for events in Exposition Park (approximately 4,986 to 5,961 existing spaces and up to 5,236 to 6,211 spaces with the Project). This conclusion is consistent with the conclusion in the certified Final EIR for the Original Stadium Project.

As described above, the Project's ancillary uses will only be open to ticketed patrons of the stadium; and thus the 676 or 648 vehicle spaces for the ancillary uses will not be needed separate from the stadium requirement. To the extent that some of the ancillary uses may be considered additional to the typical uses considered in the code requirement for a stadium, there could be some additional parking need for employees. It is estimated that up to approximately 178 parking spaces may be needed for employees of the ancillary uses if they all were to be open during stadium events and were all considered to be additional employees beyond those normally required to operate a stadium (see Table 3). This could conservatively increase the Project's potential parking need on event days to as many as 4,578 spaces (4,400 for the stadium without reduction for bicycle credit and 178 for the additional ancillary use employees), which would still be accommodated by the vehicle parking supply provided for events in

⁶ LAMC Section 12.21A.16(a)(2) provides that bicycle parking shall be required "[f]or all commercial, institutional and industrial uses that require automobile parking under Subsections 12.21A.4(c), (d), (e) and (f)..." Section 12.21A.4(e) defines auditoriums as "any theatre, church, high school, college or university auditorium, or general auditorium, stadium or other similar place of assembly." While focusing mostly on educational and institutional types of assembly uses, these provisions do not recognize that large, professional sports venues may be considered distinct uses that could have different bicycle parking demand.



Exposition Park (approximately 4,986 to 5,961 existing spaces and up to 5,236 to 6,211 spaces with the Project). Accordingly, Project parking impacts would be less than significant.

MODIFIED BICYCLE PARKING REQUIREMENT FOR STADIUM

As discussed above, the LAMC does not appear to provide a bicycle requirement that specifically applies to large, professional sport stadium uses. In the analysis above, the LAMC requirement for bicycle spaces was determined using the requirement set forth in the City of Los Angeles Bicycle Parking ordinance⁷ for auditoriums. As discussed, this yields a requirement for 660 spaces for the 22,000-seat proposed stadium (one space per 33.3 seats or 3%). Given this large number of bicycle parking spaces, which would greatly exceed bicycle parking provided at other existing or proposed professional sports venues in Los Angeles and other cities in California, this study also obtained information regarding the amount of bicycle parking either actually provided or proposed for other recent stadium projects in California. This data was used to determine a more appropriate bicycle parking requirement for a large, professional sports stadium use such as that proposed by the Project. This research yielded the following:

- Los Angeles Farmers Field – The previously approved Farmers Field NFL stadium in downtown Los Angeles was required to provide 250 new bicycle spaces for the 72,000-seat stadium, which is a ratio of one bicycle space per 288 seats or 0.35%. The project was also required to coordinate with the proposed bike share station at the Los Angeles Convention Center (to be provided separately as part of the Los Angeles bike share program) and to provide a bicycle valet program. Using this ratio, only 76 bicycle parking spaces would be required for the proposed LAFC stadium.
- Avaya Stadium – Avaya Stadium is a new stadium that opened in 2015 in San Jose, California, as the home for the San Jose Earthquakes Major League Soccer team. According to the Draft EIR for the Avaya Stadium project⁸, one bicycle parking space was required per every 50 required vehicle parking spaces. Using this ratio, 88 bicycle parking spaces would be required for the proposed LAFC stadium.
- Levi's Stadium – Levi's Stadium is new stadium that opened in 2014 in Santa Clara, California, as the home for the San Francisco 49ers NFL team. The stadium provides approximately 68,500 seats. Bicyclists can access the stadium via auto routes or by the adjacent San Tomas Aquino Creek Trail. For events exceeding 20,000 attendees (which includes all college and NFL games), the stadium is required to provide a bicycle valet service that includes a dedicated bicycle storage area with enough space to house a minimum of 750 bicycles with the possibility of an additional 500 bicycle parking spaces⁹, a range of about one space per 91 seats (~1.1%) to one space per 55 seats (~1.8%). Using these ratios, a range of approximately 240 to 400 bicycle parking spaces would be required for the proposed LAFC stadium.

⁷ City of Los Angeles, Ordinance No 182386, effective March 13, 2013. Also *Los Angeles Municipal Code*, Table 12.21A.16(a)(2).

⁸ City of San Jose, *Draft Environmental Impact Report, Airport West Stadium and Great Oaks Place Project*, September 2009.

⁹ Source: <http://www.santaclara.org/gettingaround/levisstadium.cfm> website, accessed August 5, 2015.



Based on the above, and in consideration of the LAFC stadium's location next to the planned MyFigueroa project bicycle lanes along Figueroa Boulevard and the City of Los Angeles' increasing emphasis on sustainability and alternative modes, it is recommended that the Project provide a minimum of 440 bicycle parking spaces (2% of the proposed stadium seating capacity). This amount of bicycle parking would exceed the bicycle parking rates at the other recently approved professional sports stadiums in California evaluated in this study. One-hundred and seven of these spaces should be provided in LAMC-compliant bike racks (58 as short-term spaces and 49 as long-term spaces), thus satisfying the LAMC-required bicycle parking for the ancillary uses on non-event days. The remaining 333 should be provided through a bicycle valet service on event days. In the event that bicycle parking needs increase over time, the bicycle valet service on event days could be expanded. Through the implementation of these proposed bicycle parking requirements, any potential bicycle parking impacts would be less than significant.

EMPLOYEE PARKING ON COLISEUM EVENT DAYS

It is estimated that up to approximately 178 parking spaces may be needed for employees of the ancillary uses if they all were to be open on Coliseum event days (see Table 3). In order to not interfere with the parking supply available to the Coliseum on large Coliseum event days, these employees will be parked either in one or more of the following locations: (1) temporarily in the subterranean loading dock/service area beneath the proposed Project; (2) in the Project's VIP parking lot adjacent to the soccer stadium; and/or (3) in off-site parking locations to be arranged by the Applicant. If off-site location(s) are beyond 750 feet from the Project site, shuttles will be provided to shuttle employees between the parking location(s) and the Project site. Therefore, sufficient parking supplies for Project employees would be provided on Coliseum event days, and parking impacts would be less than significant.

CONCLUSION

The capacity of the Exposition Park vehicle parking supply is sufficient to accommodate the Project's vehicle parking requirements on both event days and non-event days. On large Coliseum event days, employees of the Project's ancillary uses will be parked either in one or more of the following locations: (1) temporarily in the subterranean loading dock/service area beneath the proposed Project; (2) in the Project's VIP parking lot adjacent to the soccer stadium; and/or (3) in off-site parking locations to be arranged by the Applicant. It is suggested that the Project provide a minimum of 440 bicycle parking spaces (2% of the proposed stadium seating capacity) to encourage bicycling to events at the stadium, of which 107 (58 short-term and 49 long-term) would be provided in LAMC-compliant bike racks that satisfy the LAMC requirement for the Project's ancillary uses on non-event days, and the remaining 333 would be managed via a bicycle valet service on event days.

TABLE 1
EXPOSITION PARK DISTRICT VEHICLE PARKING SUPPLY

Inventory				
Location	Vehicle Spaces Available [a]	Reserved Spaces per Parking Agreement	# of Reserved Spaces	Net Available Vehicle Spaces
Lot 1	394			394
Lot 1A (Play Field)	375			375
Lot 2	816			816
Lot 3	478	Natural History Museum	0 - 375	103 - 478
Lot 4	217			217
Lot 5	235			235
Lot 6	1,016			1,016
Parking Structure	2,131	California Science Center	0 - 600	1,531 - 2,131
North Coliseum Drive VIP	77			77
South Coliseum Drive VIP	112			112
State Drive VIP	110			110
Total	5,961		0 - 975	4,986 - 5,961

Notes:

- a. Source: Office of Exposition Park Management, June 2015. Does not include possible 400 additional spaces in South Lawn.

**TABLE 2
PARKING CODE ANALYSIS**

Use	Vehicle Spaces			Bicycle Spaces					Vehicle Spaces Reduced for Bicycle Spaces [c]			
	Size	Code Requirement [a]	Required Vehicle Spaces	Short Term Bicycle Code Requirement [b]	Required Short-Term Spaces	Long Term Bicycle Code Requirement [b]	Required Long-Term Spaces	Total Required Bicycle Spaces	Reduction at 1 per 4 Bicycle Spaces	Maximum Reduction Potential	Capped Reduction	Reduced Vehicle Space Requirement
<i>Stadium</i>												
Stadium	22,000 seats	1 space per 5 fixed seats	4,400	1 space per 50 fixed seats	440	1 space per 100 fixed seats	220	660	165	880	165	4,235
Total Stadium			4,400		440		220	660	165	880	165	4,235
<i>Ancillary Uses</i>												
Conference	10.0 ksf	1 space per 35 sq. ft.	286	1 space per 350 sq. ft.	29	1 space per 700 sq. ft.	14	43	11	57	11	275
Museum	40.0 ksf	1 space per 500 sq. ft.	80	1 space per 10,000 sq. ft.	4	1 space per 5,000 sq. ft.	8	12	3	16	3	77
Retail	30.0 ksf	1 space per 250 sq. ft.	120	1 space per 2,000 sq. ft.	15	1 space per 2,000 sq. ft.	15	30	8	24	8	112
Restaurant	14.0 ksf	1 space per 100 sq. ft.	140	1 space per 2,000 sq. ft.	7	1 space per 2,000 sq. ft.	7	14	4	28	4	136
Office	25.0 ksf	1 space per 500 sq. ft.	50	1 space per 10,000 sq. ft.	3	1 space per 5,000 sq. ft.	5	8	2	10	2	48
Total Ancillary Uses			676		58		49	107	28	135	28	648

- a. Source: Los Angeles Municipal Code, Section 12.21A.4.
b. Source: Los Angeles Municipal Code, Section 12.21A.16.
c. City of Los Angeles bicycle ordinance allows for replacement of required vehicle parking spaces for non-residential uses at a ratio of 1 vehicle space for every 4 bicycle spaces up to 20% of required spaces.

TABLE 3
LAFC EMPLOYEE PARKING NEED

Land Use	Total Vehicle Spaces Required per LAMC Code [a]	Estimated Number of Vehicle Spaces Needed for Employees							Employee Parking Need
		Size (sf)	Employee Factor (employees/sf) [b]	# of Employees	Transit	Rideshare	AVR	Absentee	
Conference Facilities	286	9,000	0.00271	24	15%	10%	1.33	5%	17
Museum	80	36,000	0.00135 [c]	49	15%	10%	1.33	5%	35
Retail	120	27,750	0.00271	75	15%	10%	1.33	5%	53
Restaurant	140	11,900	0.00271	32	15%	10%	1.33	5%	23
Office	50	21,250	<i>assume all code-required spaces are used by employees</i>						50
Total	676	105,900							178

Notes:

- a. From Table 8.
- b. Source: Los Angeles Unified School District, *2012 Developer Fee Justification Study*, February 2012.
- c. Museum employee density would be lower than retail. Employee factor for industrial parks used as surrogate for museum.